

Work Order ID 138151

October 26, 2015 3:28:10 PM

647.7815
138151
REV. N/C

138151

2 kits shipping Nov 20

Page 1

Item ID: 647.7815

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Fwd Bracket

Start Date: 10/26/2015 Start Qty: 8.00

8

Cust Item ID:

Required Date: 11/9/2015 Req'd Qty: 8.00

8

Customer:

Reference:

Approvals:

Process Plan: SA

Date: 10/15/10

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
647.7800	N/C

100

0.00

100

BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut Blanks at 4.625"

B.A 15/11/03

8

0

DAS
08
9-89

110

0.00

110

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.07

HAAS CNC vertical machine #1

1-Machine per folio FB242
DWG REV: N/C
FOLIO REV: AA

B.A 15/11/04

8

0

DAS
08
9-89

2- deburr and break all sharp edges

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
				Completed By					
				Lead hand / Supervisor Approval Verification					
				QC / QA Coordinator Approval					

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____							
Misidentified	☐	Past Due	☐								

Work Order ID 138151

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138151

Page 2

Item ID: 647.7815 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Fwd Bracket
Start Date: 10/26/2015 Start Qty: 8.00 ***8*** Cust Item ID:
Required Date: 11/9/2015 Req'd Qty: 8.00 ***8*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC2- Inspect parts off machine FAI/FAIB	0.00							DAS 08 9-89
120									
QC	Memo	0.00		B.A		8	0		
Quality Control				15/11/04					
130	QC8- Inspect parts - second check	0.00							DAS 44 9-89
130									15/11/05
QC	Memo	0.00				8	0		
Quality Control									
140	Outsource process-Anodize per QSI017 4.1.10.1	0.00							
140									
Outsource4	Memo	24.00							
Outsource process - Anodize	Issue P/O to ATG : <u>30385</u>								
	1- Black Anodize as per Dwg 647.7800								
	2- PRIME AS PER DWG, SEE NOTE #2								
	Certification of Comformity is required								

CL NOV 06 2015 8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : ☐					

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	OTHER : _____							
Misidentified	☐	Past Due								

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138151

Page 4

Item ID: 647.7815 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Fwd Bracket
Start Date: 10/26/2015 Start Qty: 8.00 ***8*** Cust Item ID:
Required Date: 11/9/2015 Req'd Qty: 8.00 ***8*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	QC21- Final Inspection - Work Order Release	0.00							
190									
QC	Memo	0.01							
Quality Control									

MCS DEC 02 2015

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY																																																																																																																											
Environment	☐	Design	☐	Doc/Data	☐	Equip/Tooling	☐	Handling/Pre	☐	Material	☐	Internal Transport	☐	Tribal Knowledge	☐	LOA	☐	Substation	☐	Past Expiry Date	☐	Misidentified	☐	No Re-verification	☐	Operator	☐	Offset/Setup	☐	Supplier	☐	Training	☐	Use for Testing	☐	Poor Information	☐	Rushing	☐	Product Improvement	☐	Process Improvement	☐	Manufacturing Process	☐	Past Due	☐	Pressure/Forced	☐	Bending	☐	Centre Not Concentric	☐	Cracks	☐	Crimp/Kink/Ripple/Wave	☐	Cuffs	☐	Crushing	☐	Heat Treat	☐	Wave/Twist in Tube	☐	Marks/Chatter	☐	Temperature/Cure	☐	Set-up	☐	BOM/Route	☐	Broken/Damage/Defect	☐	Inspection Incomplete/Unqualified	☐	Contamination	☐	Countersink	☐	Cut Too Short	☐	Instructions Incomplete/Unclear	☐	Drill Holes	☐	Power Loss/Surge	☐	Folio/Program	☐	Grain	☐	Weld	☐	Wrong Stock Pulled	☐	Out of Sequence	☐	Off-set	☐	Mislabeled	☐	Fit/Function	☐	Misaligned/off center	☐	Positioned Wrong	☐	Outside Dimensions	☐	Over/Under tolerance	☐	Part Incorrect	☐	Part Lost/Missing	☐	Part Moved	☐	Drawing	☐	Finish	☐	Misread	☐	Turning Sequence	☐
OTHER : _____																																																																																																																															

Picklist Print

October 26, 2015 3:28:15 PM

Page 1

Work Order ID: 138151

138151

Parent Item: 647.7815

647 7815

Parent Item Name: Fwd Bracket

Start Date: 10/26/2015

Required Date: 11/9/2015

Start Qty: 8.00

Required Qty: 8.00

Comments: IPP REV A RQ 13/12/23 VERIFIED BY: DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M7075T6B1.500X1.500

Purchased

No

100

f

27.2030

0.385

3.242105

M7075T6B1 500X1 500

7075 T6 BAR 1.500 x 1.500

B.A 15/11/03

Location

Loc Qty

Loc Code

MAT006

27.203

M131357

1.25

→ M132693

13.953

M133416

12

3.1166 ft
~~3.1166 ft~~

APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

04487

SHEET 1 OF 1

DWG NO. 647.7800

REV: NC

PREPARED BY J. SOTO

DATE: 04/07/2014

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: BRACKET

APPROVED BY:

ENGR

MFG

QC

EFF.

NEXT ORDER

TRANSACTION CODES (TC):
A-ADD
R-REVISE
C-CREATE
D-DELETE

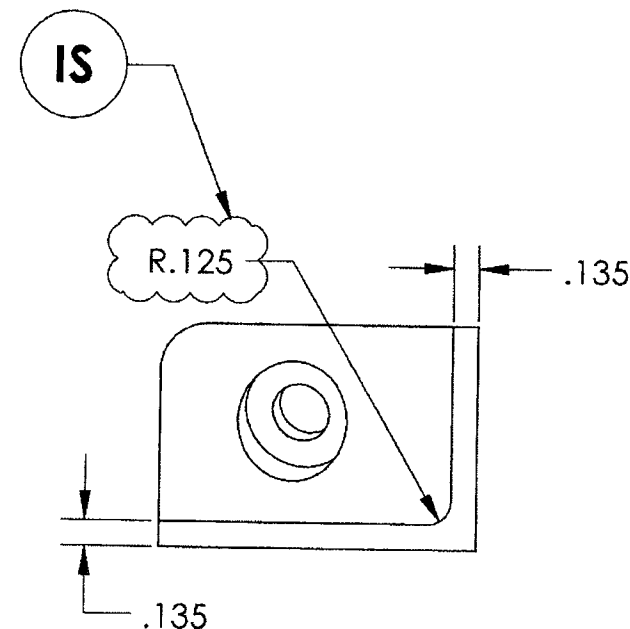
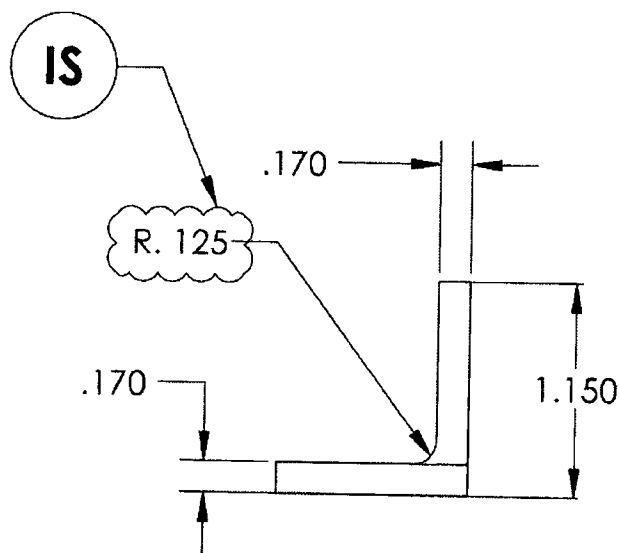
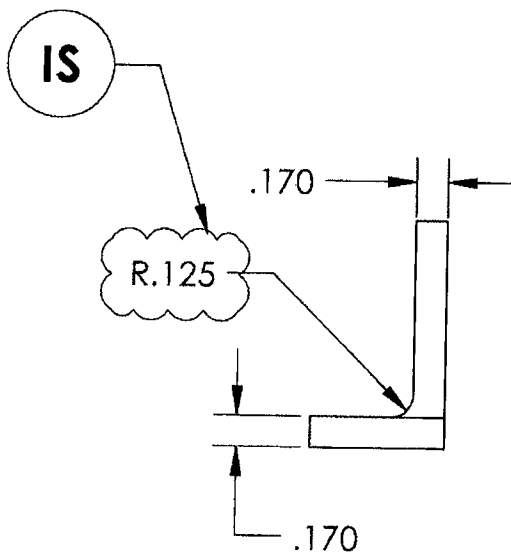
REASON: REVISED DRAWING DIMENSIONS.

ECR:
D-14-03

SHEET 4, ZONE B5 IS:

SHEET 5, ZONE C4 IS:

SHEET 9, ZONE D1 IS:



20151026

SA 138151

DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM

CHANGE CATEGORY

☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED

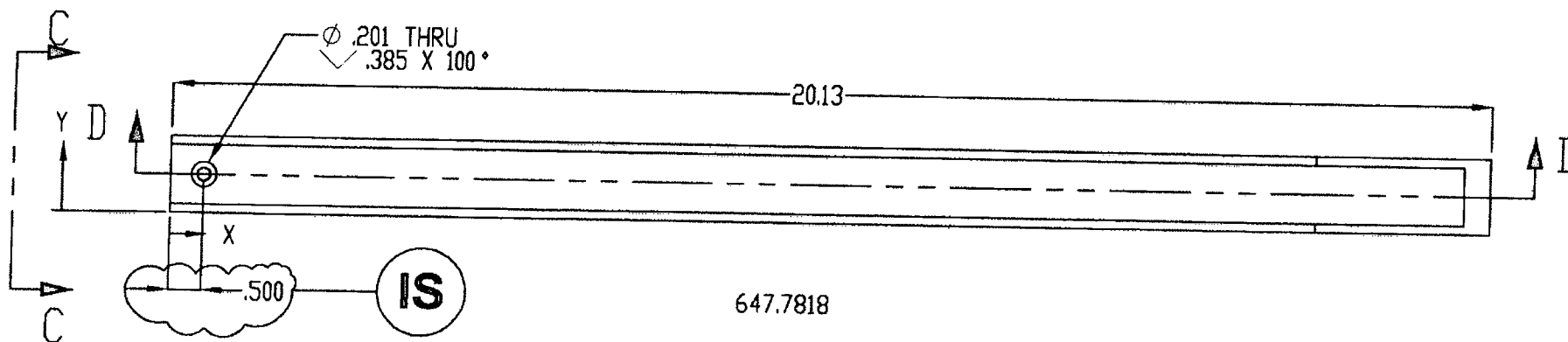
☐ YES ☒ NO

APICAL
INDUSTRIES, INC.

ENGINEERING CHANGE NOTIC NO. 03128		SHEET 1 OF 1	
DWG NO. 647.7800	REV: NC	PREPARED BY E. CASTELLANI	DATE: 06/06/11
DWG TITLE: BRACKET		EFFECT ON DWG ☐ INC. ☒ UNINC.	
APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: CURRENT ORDER
REASON: ADDED MISSING DIMENSION ON 647.7818.			

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

SHEET 6, ZONE B1:



F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:				☐ MDL ☐ INSTALL INSTRUC ☐ ICA ☐ BOM	CHANGE CATEGORY ☐ MAJOR ☒ MINOR	DER REVIEW REQUIRED ☐ YES ☒ NO

1 2 3 4 5 6 7 8

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APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

NOTES:

- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
- 2 FINISH: ANODIZE PER MIL STD-A-8625, TYPE III, CLASS 2, COLOR BLACK
CARDINAL 4860-50 PRETREATMENT PRIMER
PRIME IAW MIL-P-23377J TYPE I CLASS N
3. DEBURR AND BREAK ALL SHARP EDGES
4. IDENTIFY IAW MPP-120

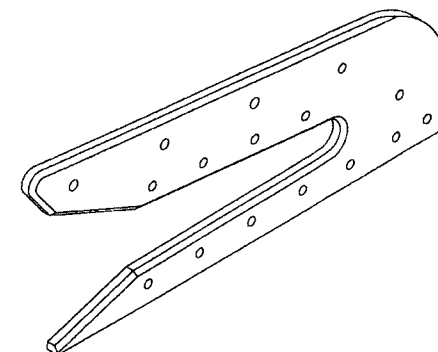
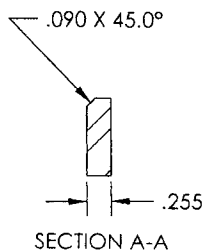
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REV.	DESCRIPTION	DATE	APPROVED
N/C	LAST PROTOTYPE REVISION: P2		N/C
N/C	INITIAL RELEASE	12-21-09	P. BRAVO

UNINCORPORATED ECN(S)

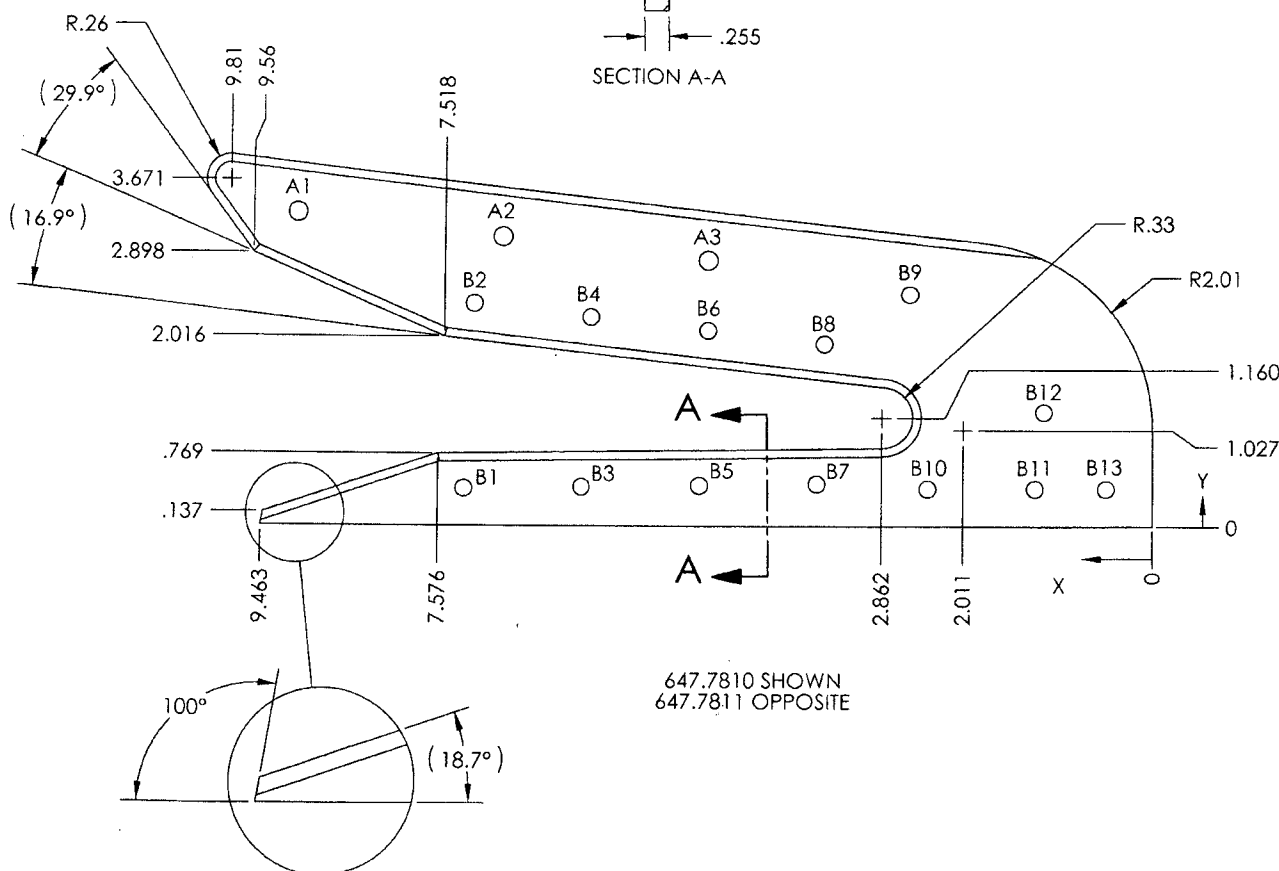
03128, 04487

	647.7822	EYE BOLT FITTING RH	△	△		
	647.7821	EYE BOLT FITTING LH	△	△		
	647.7820	CROSS BRACKET AFT	△	△		
	647.7819	CROSS BRACKET FWD	△	△		
	647.7818	MOUNTING CHANNEL	△	△		
	647.7817	AFT BRACKET	△	△		
	647.7816	AFT BRACKET	△	△		
	647.7815	FORWARD BRACKET	△	△		
	647.7814	FORWARD BRACKET	△	△		
	647.7813	CENTER PLATE LOWER	△	△		
	647.7812	CENTER PLATE UPPER	△	△		
	647.7811	BRACKET B	△	△		
	647.7810	BRACKET A	△	△		
QTY		F/N	PART #	DESCRIPTION	MAT'L	SPEC
PARTS LIST						
NEXT ASSY (S)		ORIGINAL DATE (MM-DD-YY) 11-05-09		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300		
647.7300		DRAWN BY E. ANDERSSON				
647.7400		CHECKED BY P. BRAVO				
		DRAWING APPROVAL P. BRAVO 12-21-09 CORRESP. CT NO.				
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SHEET 3	DWG. NO. 647.7800	REV. N/C
SCALE NONE				SHEET 1 OF 9		

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647.7810
647.7811 OPPOSITE



TAG	X LOC	Y LOC	SIZE
A1	9.092±.002	3.332±.002	Ø.201 THRU
A2	6.906±.002	3.083±.002	Ø.201 THRU
A3	4.720	2.835±.002	Ø.201 THRU
B1	7.300±.002	.397±.002	Ø.177 THRU
B2	7.203±.002	2.369±.002	Ø.177 THRU
B3	6.050±.002	.415±.002	Ø.177 THRU
B4	5.961±.002	2.228±.002	Ø.177 THRU
B5	4.800±.002	.433±.002	Ø.177 THRU
B6	4.719±.002	2.088±.002	Ø.177 THRU
B7	3.550	.450	Ø.177 THRU
B8	3.476	1.947	Ø.177 THRU
B9	2.575	2.475	Ø.177 THRU
B10	2.380	.400	Ø.177 THRU
B11	1.250	.400	Ø.177 THRU
B12	1.160	1.220	Ø.177 THRU
B13	.500	.400	Ø.177 THRU

ORIGINAL DATE
11-05-97
DRAWN BY: J. CRICHTER
E. ANDERSON P. BRAVO
DRAWING APPROVAL
P. BRAVO
CONTRACT NO.
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
2 PLACE DECIMALS ±.01
3 PLACE DECIMALS ±.005
ANGLES ±.5°

APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5300

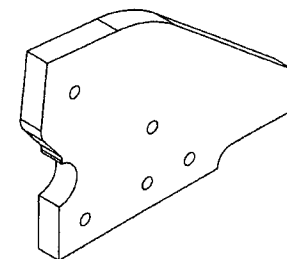
BRACKET

SRE CAGE CODE DWG. NO. 647.7800 REV.
B 07M16 N/C
SCALE: NONE SHEET 2 OF 9

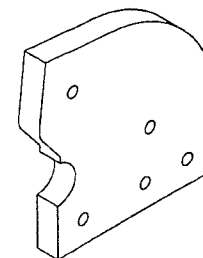
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TAG	X LOC	Y LOC	SIZE
1	2.575±.002	2.475±.002	Ø .177 THRU
2	2.380±.002	.400±.002	Ø .177 THRU
3	1.250±.002	.400±.002	Ø .177 THRU
4	1.160±.002	1.220±.002	Ø .177 THRU
5	.500±.002	.400±.002	Ø .177 THRU

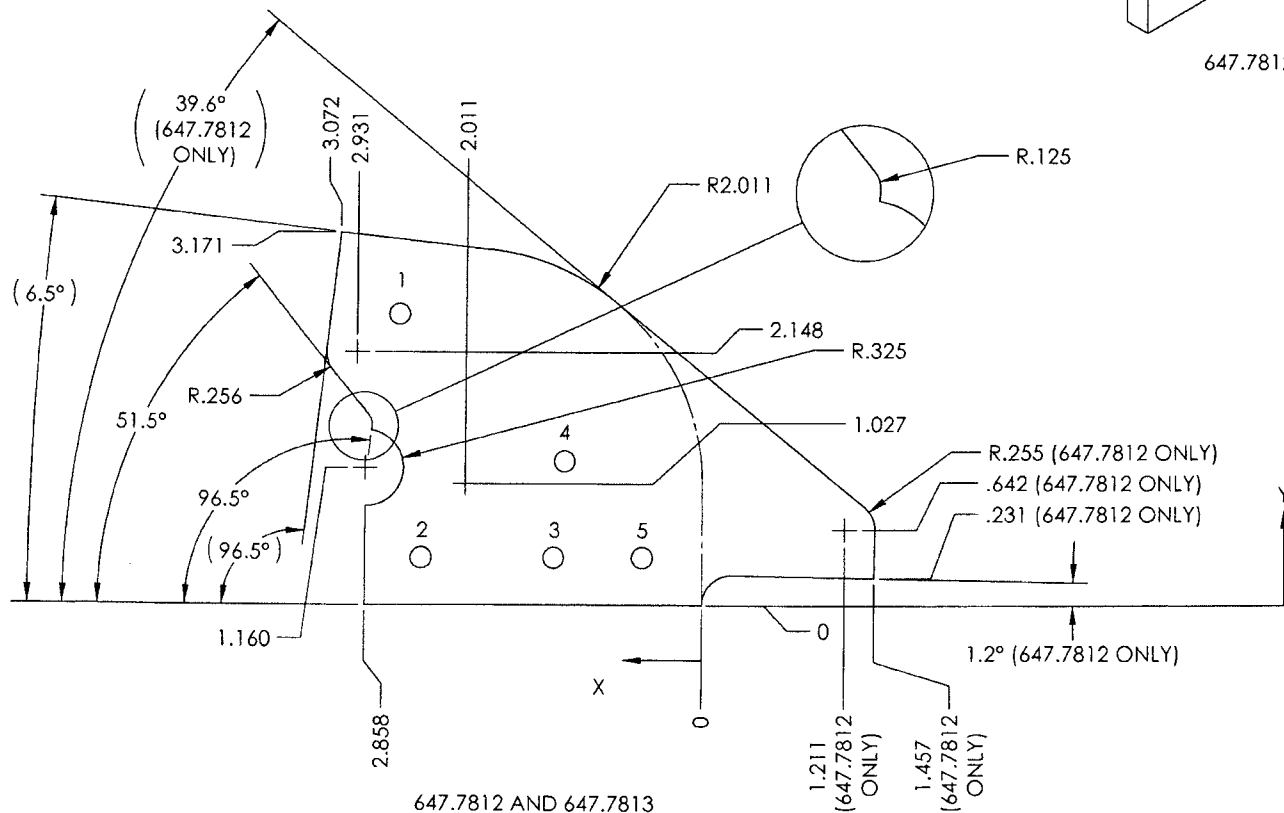
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



647.7812



647.7813

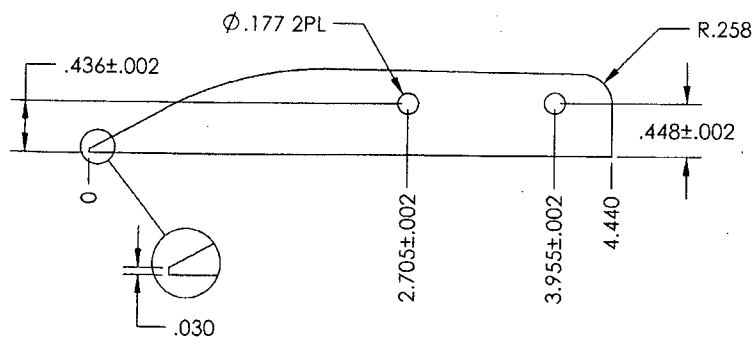
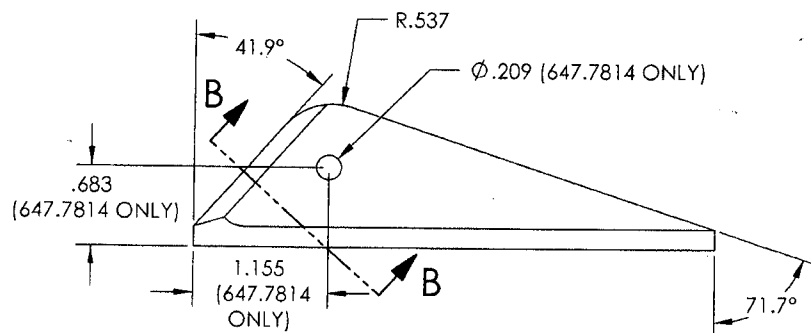
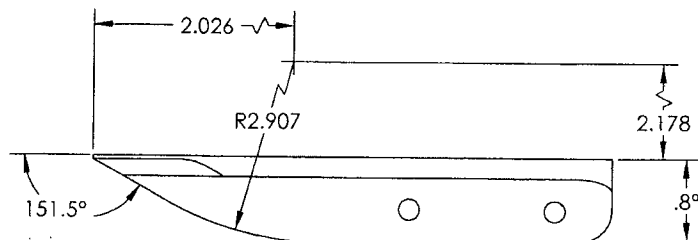


647.7812 AND 647.7813

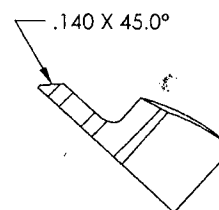
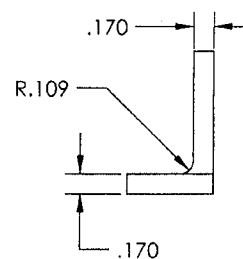
ORIGINAL DATE (MM-DD-YY) 11-05-09		APICAL INDUSTRIES	
DRAWN BY: E. ANDERSSON P. BRAVO		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL P. BRAVO		BRACKET	
CONTRACT NO.		DWG. NO. 647.7800	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		REV. 07/02/06	REV. N/C
SCALE NONE		SHEET 3 OF 9	

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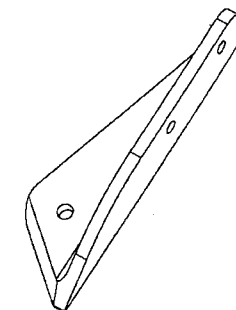
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



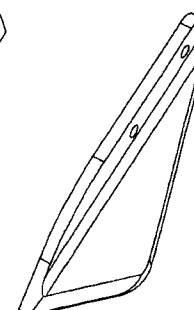
647.7814 SHOWN
647.7815 OPPOSITE



SECTION B-B



647.7814



647.7815

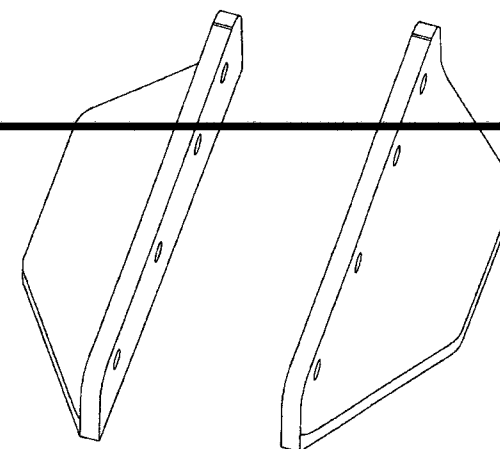
ORIGINAL DATE 11-05-09			
DRAWN BY E. ANDERSSON			
DRAWING APPROVAL P. BRAVO			
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°			
SHEET B	CAGE CODE 07M16	DWG. NO. 647.7800	REV. N/C
SCALE NONE			SHEET 4 OF 9

APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5300

BRACKET

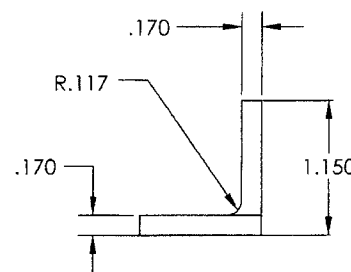
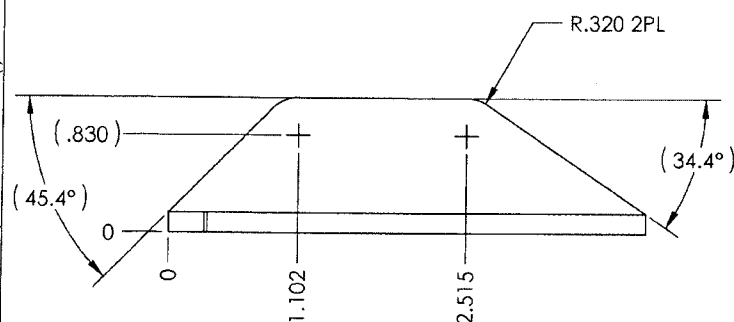
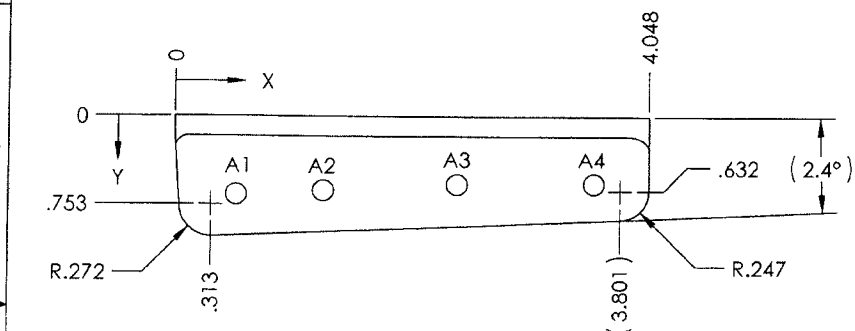
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

TAG	X LOC	Y LOC	SIZE
A1	.527±.002	.666±.002	Ø.177 THRU
A2	1.276±.002	.631±.002	Ø.177 THRU
A3	2.404±.002	.578±.002	Ø.177 THRU
A4	3.576±.002	.573±.002	Ø.177 THRU



647.7816

647.7817

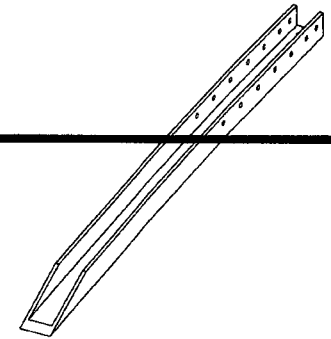
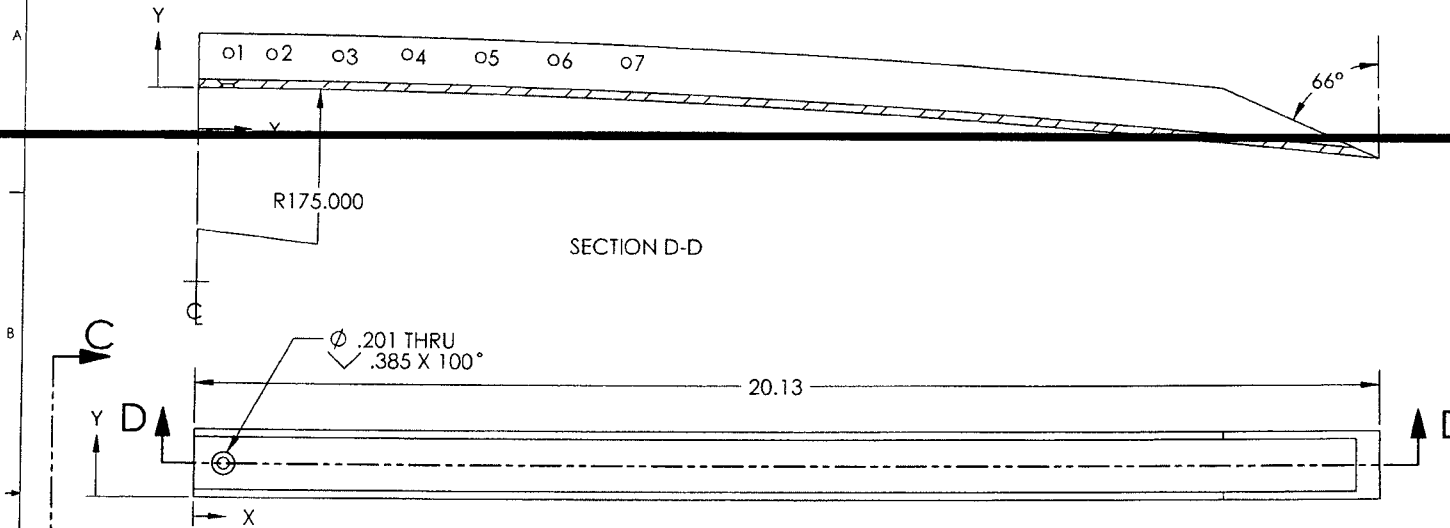


647.7816 SHOWN
647.7817 OPPOSITE

ORIGINAL DATE (MO-DA-YR) 11-05-09	APICAL INDUSTRIES		
DRAWN BY: CHICKER	2608 TEMPLE HEIGHTS DR		
BY: J. ANDERSON P. BRAVO	OCEANSIDE, CA. 92056-3512 (760)724-5312		
DRAWING APPROVAL P. BRAVO	BRACKET		
CONTRACT NO.	SCALE NONE		
UNLESS OTHERWISE SPEC-#RD DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1. PLACE DECIMALS ±.01 2. PLACE DECIMALS ±.005 3. PLACES ±.001	SHEET	647.7800	REV. 0
	SCALE NONE	1 SHEET	5 OF 9

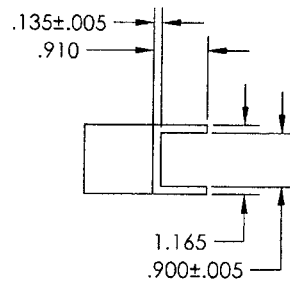
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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



647.7818

647.7818



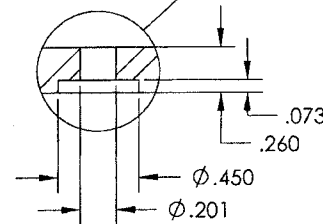
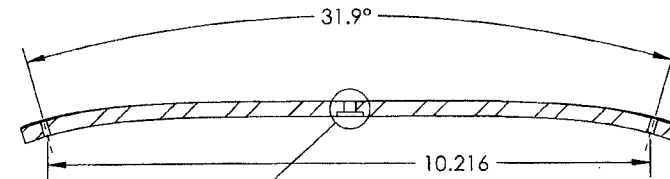
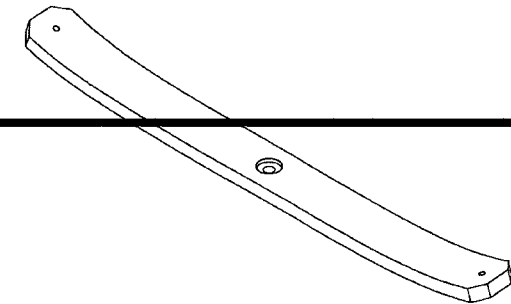
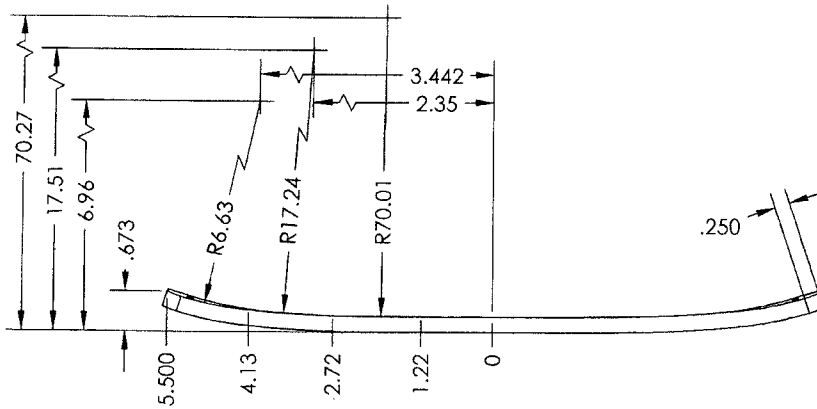
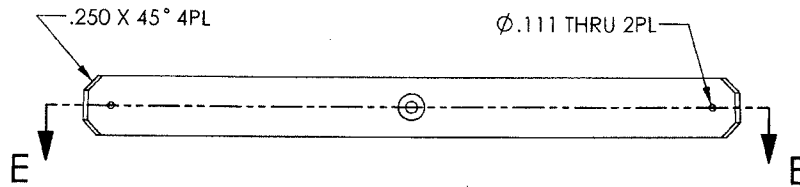
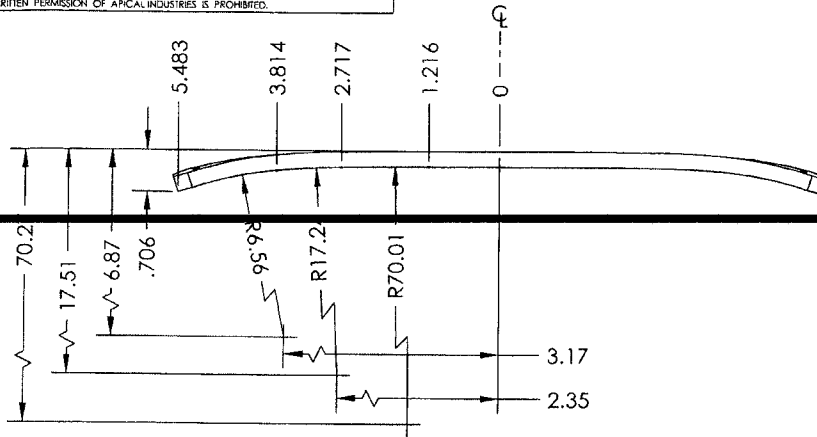
SECTION C-C

TAG	X LOC	Y LOC	SIZE
1	.506±.002	.578±.002	Ø.177 THRU
2	1.256±.002	.57±.002	Ø.177 THRU
3	2.386±.002	.549±.002	Ø.177 THRU
4	3.557±.002	.581±.002	Ø.177 THRU
5	4.806±.002	.544±.002	Ø.177 THRU
6	6.055±.002	.507±.002	Ø.177 THRU
7	7.305±.002	.470±.002	Ø.177 THRU

ORIGINAL DATE: 11-01-00		APICAL INDUSTRIES	
DRAWN BY: E. ANDERSON		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: P. BRAVO		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DRAWING APPROVAL: P. BRAVO		BRACKET	
CONTRACT NO.		SIZE: 8 07M26	DWG. NO. 647.7800
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SCALE: NONE	REV. N/C
		SHEET 6 OF 9	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



ORIGINAL DATE (MM-DD-YY)		DRAWN BY E. ANDERSON		CHECKED BY P. BRAVO	
DRAWING APPROVAL P. BRAVO		CONTRACT NO.		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°	
REV.	DATE	DESCRIPTION	BY	DATE	DESCRIPTION
B	07/26/24				

APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5300

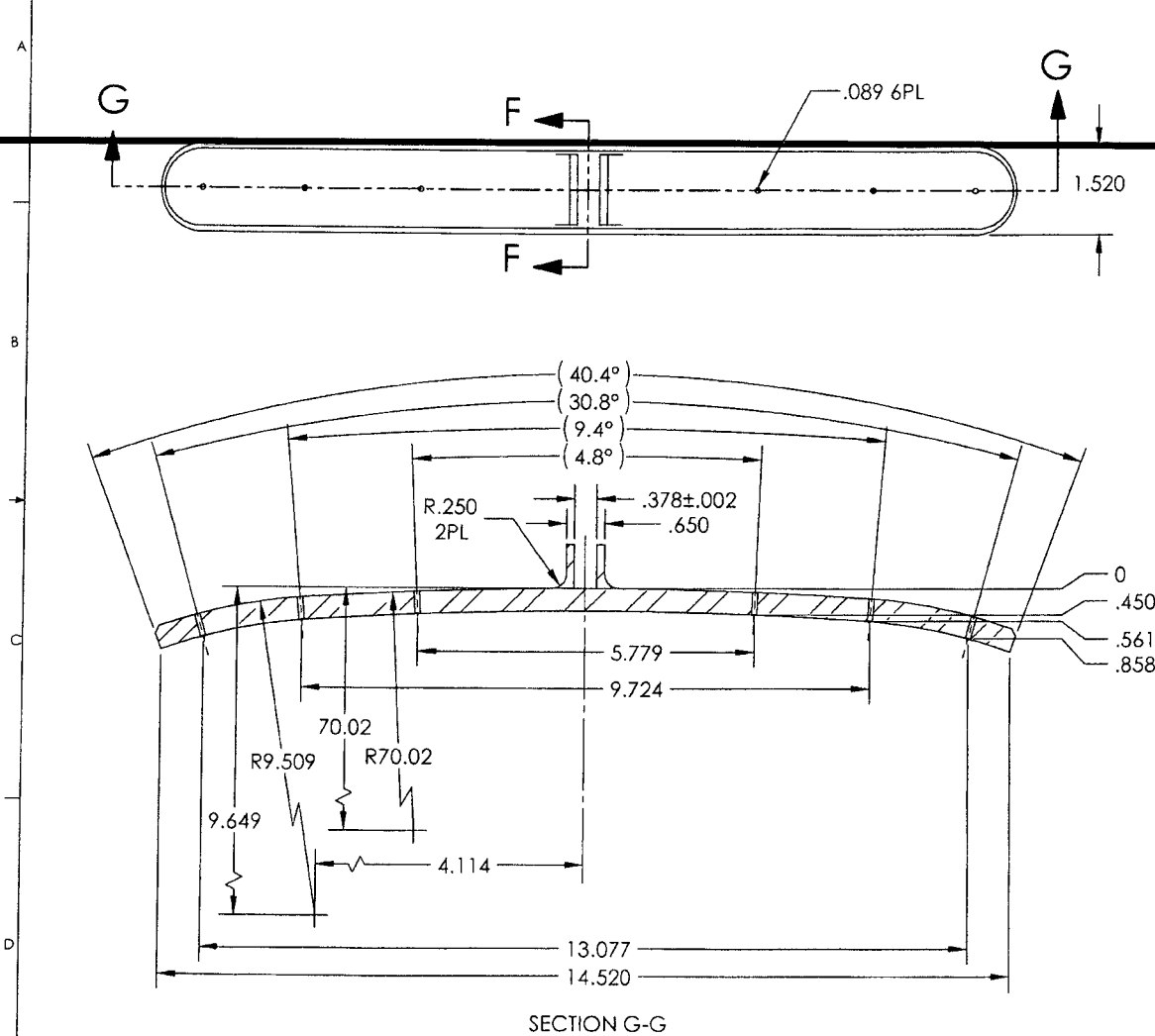
BRACKET

DWG. NO. **647.7800**

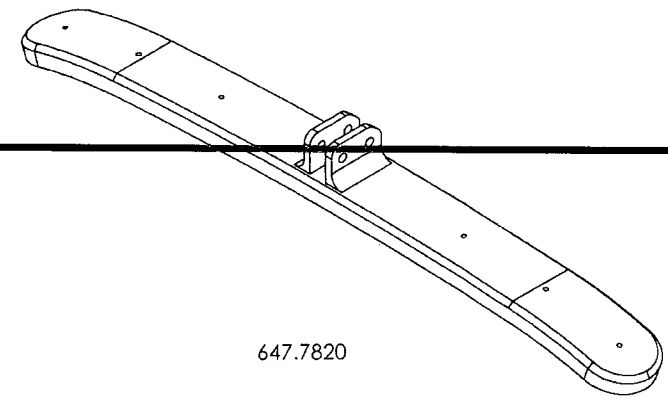
SCALE NONE SHEET 7 OF 9

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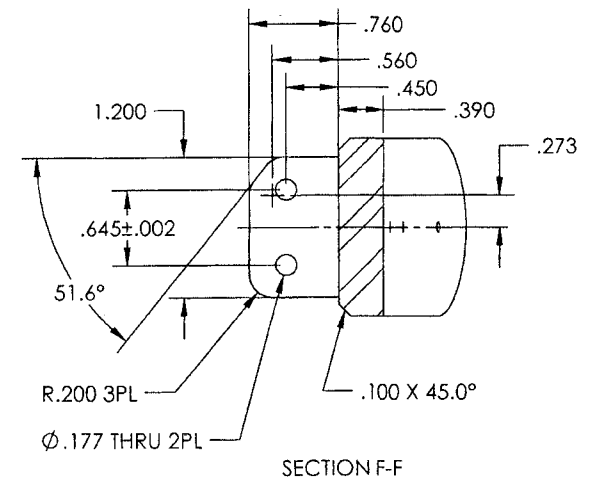
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



SECTION G-G



647.7820

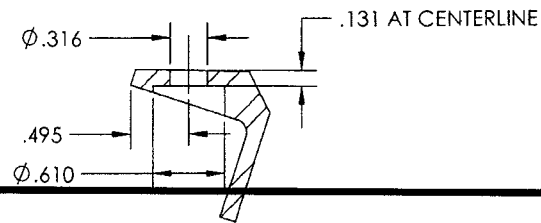
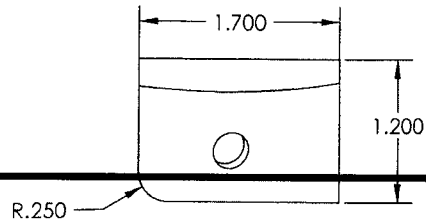


SECTION F-F

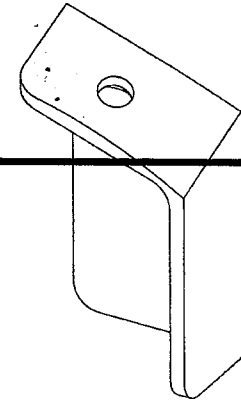
ORIGINAL DATE: 11-05-00		APICAL INDUSTRIES	
DRAWN BY: E. ANDERSON		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: P. BRAVO		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DRAWING APPROVAL: P. BRAVO		BRACKET	
CONTRACT NO.:		DWG. NO. 647.7800	
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES ARE: 2 PLACE DECIMALS ±.01; 3 PLACE DECIMALS ±.003; ANGLES ±.5°		REV. N/C	
SCALE: NONE		SHEET 8 OF 9	

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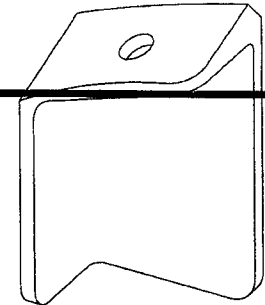
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



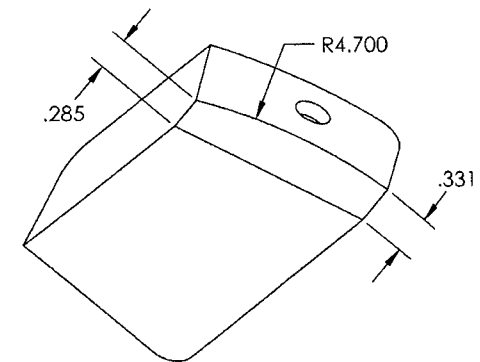
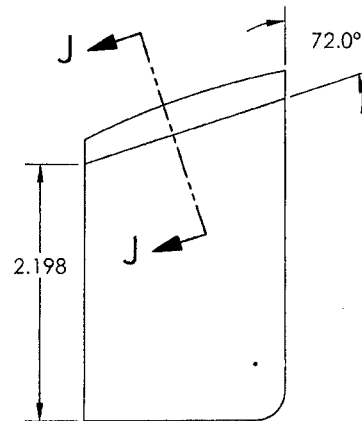
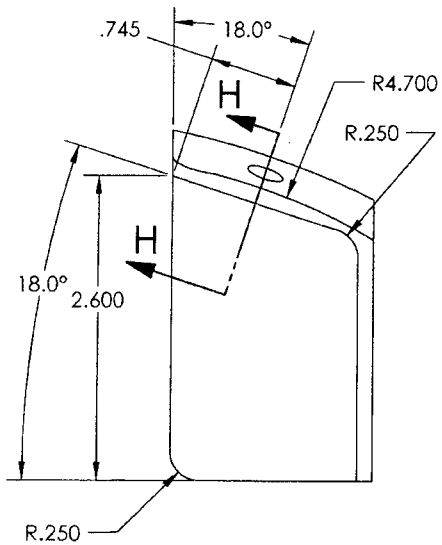
SECTION H-H



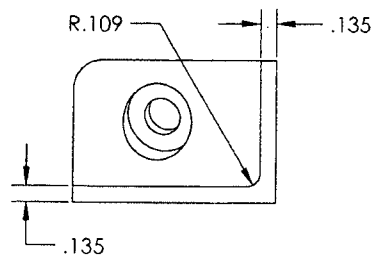
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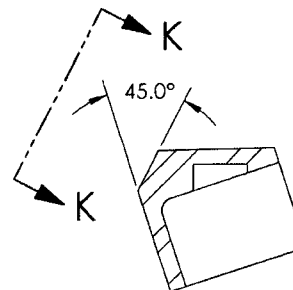
647.7822



SECTION K-K



647.7821 SHOWN
647.7822 OPPOSITE



SECTION J-J

ORIGINAL DATE JUN 24 1981		APICAL INDUSTRIES	
DRAWN BY E. ANDERSON		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
CHECKED BY P. BRAYO		BRACKET	
DRAWING APPROVAL P. BRAYO		REV. N/C	
CONTRACT NO.		DWG. NO. 647.7800	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .01 3 PLACE DECIMALS ± .005 ANGLES ± .5°		SCALE NONE	
SHEET 9 OF 9		SHEET 9 OF 9	

FIRST ARTICLE INSPECTION CHECKLIST

~~DAS~~

44



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO30385

Purchase Order Date 11/6/2015

PO Print Date 11/10/2015

Page Number 5 of 7

Order From :

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

VC-ATG001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

613-446-4544

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

VENDOR'S TRUCK

12 138151

647.7815 FWD
BRACKET-REV. N/C

11/18/2015

Yes

11/18/2015

8.00

\$6.85

\$54.80

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE I CLASS N

Line Total:

\$54.80

13 138240

647.7816 AFT BRACKET
REV. N/C

11/18/2015

Yes

11/18/2015

10.00

\$6.85

\$68.50

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE I CLASS N

Line Total:

\$68.50

14 138364

647.7817 AFT BRACKET
REV. N/C

11/18/2015

Yes

11/18/2015

10.00

\$6.85

\$68.50

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE I CLASS N

Line Total:

\$68.50

Note:

11/10/2015



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 64024

Date: 01-Dec-15

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via	
Quantity	Description		
6 ea	Part: 646.2910 DEFLECTOR HARD ANODIZE AS PER MIL-A-8625 TY III, CLASS 2 PRIME AS PER MIL-P-23377J TYPE I CLASS N PRIMER IS SUPPLY BY THE CUSTOMER Job: 20150833	Rev: N/C PO: PO30385	Line:
4 ea	Part: D4410-5 FACE PLATE BLACK ANODIZE MIL-A-8625 TYPE II CLASS 2 Job: 20150872	Rev: E PO: PO30385	Line:
5 ea	Part: 646.3812 GUSSET BRACKET HARD ANODIZE AS PER MIL-A-8625 TY III, CLASS 2 PRIME AS PER MIL-P-23377J TYPE I CLASS N PRIMER IS SUPPLY BY THE CUSTOMER Job: 20150873	Rev: PO: PO30385	Line:
5 ea	Part: 646.3813 STRUT BRACKET HARD ANODIZE AS PER MIL-A-8625 TY III, CLASS 2 PRIME AS PER MIL-P-23377J TYPE I CLASS N PRIMER IS SUPPLY BY THE CUSTOMER Job: 20150874	Rev: N/C PO: PO30385	Line:
6 ea	Part: 647.0410 TUBE REV HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2	Rev:	

SP15-12-01



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 64024

Date: 01-Dec-15

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via	
Quantity	Description		
	PRIME MIL-P-23377J TYPE I CLASS N PAINT IS SUPPLIED BY CUSTOMER Job: 20150875 PO: PO30385 Line:		
8 ea	Part: 647.7814 FWD BRACKET HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLASS N PAINT IS SUPPLIED BY CUSTOMER Job: 20150876 PO: PO30385 Line:	Rev:	
8 ea	Part: 647.7815 FWD BRACKET HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLASS N PAINT IS SUPPLIED BY CUSTOMER Job: 20150877 PO: PO30385 Line:	Rev:	8015-12-01
Certificate of Conformance A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order. ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY DATE: <u>1/12/15</u> CERTIFIED SIGNATURE: <u></u>			



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 64024

Date: 01-Dec-15

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via
Quantity	Description	
	RECEIVER SIGNATURE: <u>SP15-12-01</u>	